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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/562,606

09/01/2006

Young-Sik Choi

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EXAMINER

ANYIKIRE, CHIKAODILI E

ART UNIT

PAPER NUMBER

2482

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/562,606	Applicant(s) CHOI ET AL.	
	Examiner CHIKAODILI E. ANYIKIRE	Art Unit 2482	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-8,11-13, and 16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4-8,11-13 and 16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. Acknowledgement is made of applicant's information disclosure statement.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1, 4-8, 11-13, and 16 rejected under 35 U.S.C. 103(a) as being unpatentable over Uchihachi et al (US 6,535,639, hereafter Uchihachi) in view of Bolt et al (US 2005/0251406, hereafter Bolt).

As per **claim 1**, Uchihachi discloses an automatic video summarizer comprising:

an input unit for receiving a video source to be summarized and a desired summarization time from a user (Figure 3 element 310; column 5 lines 64 - column 6 lines 4);

an importance measurement module for generating importance degrees according to category characteristics of the video and a purpose of desired summary (Figure 3 element 330; column 6 lines 4-7); and

a video summarization generation module for applying shot information and an importance value to a characteristic support vector algorithm, and generating a video summary (Figure 3 elements 340 and 350; column 6 lines 7 - 10);

a scalability processing module for receiving the summarization time information from the user, repeatedly performing a scalability process, and generating a video summary having a time range desired by the user (column 5 lines 59-63 and column 10 lines 8-22; the user parameters selected by the user affects and provides the desired time range of the user).

However, Uchihachi does not explicitly teach a video summarization generation module for applying shot information to a characteristic support vector algorithm, wherein the characteristic support vector algorithm is the fuzzy OC-SVM (one-class support vector machine) algorithm.

In the same field of endeavor, Bolt teaches a video summarization generation module for applying shot information to a characteristic support vector algorithm, wherein the characteristic support vector algorithm is the fuzzy OC-SVM (one-class support vector machine) algorithm (see Abstract and paragraphs [0051] and [0065]; Bolt teaches using the one-class SVM machine with propensity values that act to represent the importance of event data).

Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to modify the invention of Uchihachi in view of Bolt. The advantage would be providing a video summarization with desired importance values of video data to optimize summarization efforts.

As per **claim 4**, Uchihachi discloses the automatic video summarizer of claim 1, further comprising a shot detection module for extracting the video sources for respective shots (column 6 lines 1-10).

As per **claim 5**, Uchihachi discloses the automatic video summarizer of claim 1, comprising: an output unit for outputting the generated video summary to a screen; and a storage unit for storing the generated video summary (Figure 3 element 355 and Figure 8 element 720; column 6 lines 9-10 and column 9 lines 38-40).

As per **claim 6**, Uchihachi discloses the automatic video summarizer of claim 5.

However, Uchihachi does not explicitly teach wherein the video summarization generation module comprises: a characteristic support vector module for applying the

shot information and the importance value to the characteristic support vector algorithm, and generating a video summary.

In the same field of endeavor, Bolt teaches wherein the video summary generation module comprises: a characteristic support vector module for applying the shot information and the importance value to the characteristic support vector algorithm, and generating a video summary; and a scalability processing module for receiving the summarization time information from the user, repeatedly performing a scalability process, and generating a video summary having a time range desired by the user (see Abstract and paragraphs [0051] and [0065]; Bolt teaches using the one-class SVM machine with propensity values that act to represent the importance of event data).

Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to modify the invention of Uchihachi in view of Crinon. The advantage would be providing a video summarization with the least distortion.

As per **claim 7**, Uchihachi discloses the automatic video summarizer of claim 6, wherein the shot detection module detects a shot from the video source to be summarized, configures a shot list, and transmits the shot list to the video summarization generation module (column 6 lines 1-8).

Regarding **claim 8**, arguments analogous to those presented for claim 1 are applicable for claim 8.

Regarding **claim 11**, arguments analogous to those presented for claim 5 are applicable for claim 11.

Regarding **claim 12**, arguments analogous to those presented for claim 6 are applicable for claim 12.

Regarding **claim 13**, arguments analogous to those presented for claim 1 are applicable for claim 13.

Regarding **claim 16**, arguments analogous to those presented for claim 1 are applicable for claim 16.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHIKAODILI E. ANYIKIRE whose telephone number is (571)270-1445. The examiner can normally be reached on Monday to Friday, 7:30 am to 5 pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on (571) 272 - 7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2482

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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